

14. *MACHETES PUGNAX* (Linn.).

A female. "Bill black; feet yellowish brown; iris brown."

This bird was shot on the mud of an irrigated field.

15. *TOTANUS CANESCENS* (Gm.).

No. 5, ♀. Lahej, October 25th, 1897. "Bill black; feet greenish grey; iris brown."

This bird was found feeding in the mud of an irrigated field along with other Waders.

16. *DAFILA ACUTA* (Linn.); *Salvad. Cat. B. Brit. Mus.* xxvii, p. 270.

Two females. "Base of bill grey; feet and toes grey, webs black; iris dark brown."

XXXIV.—*On the final Collections of Birds made by Mr. Alexander Whyte, F.Z.S., in Nyasaland.* By Captain G. E. SHELLEY, F.Z.S. *With Prefatory Remarks by P. L. SCLATER, M.A., Ph.D., F.R.S.*

I. PREFATORY REMARKS, by P. L. S.

[THE present paper contains Capt. Shelley's list of the species represented in the final collections made by Mr. Whyte for Sir Harry Johnston in Nyasaland, previously to his return home last year. The specimens, altogether 264 in number, are referred by Capt. Shelley to 132 species. Of these none are new to science, but 24 are additional to the species already recorded in Capt. Shelley's previous papers on Mr. Whyte's birds.*

* The titles of these papers are as follows:—

- (1) List of Birds collected by Mr. Alexander Whyte, F.Z.S., in Nyasaland. By Captain G. E. SHELLEY, F.Z.S., with a Preface by P. L. SCLATER. *Ibis*, 1893, p. 1, pls. i.-iii.

[Report on 430 specimens, referred to 134 species, of which 12 were described as new.]

- (2) Second List of Birds collected by Mr. Alexander Whyte, F.Z.S., in Nyasaland. By Captain G. E. SHELLEY, F.Z.S. *Ibis*, 1894, p. 1, pls. i., ii.

[Report on 1030 specimens, referred to 205 species. Of these 9 were new, and 102 were not represented in the first collection.]

As will be seen by the localities in Capt. Shelley's list, which are always noted, the greater number of the specimens in the present series were obtained on Mount Zomba or in the immediate vicinity. But it also embraces the collection formed by Mr. Whyte during an excursion which he made to Mount Mlosa, to the west of Zomba, in November and December 1896, concerning which Mr. Whyte has kindly supplied me with the following particulars:—

“I started on a collecting-trip to Mount Mlosa on the 9th Nov. 1896, and spent ten days on the range on that occasion. Finding the plateau more than usually interesting, I revisited it a month later, and procured a second and good collection of such plants as were not in bloom during my first visit, as also additional specimens of mammals, birds, and other animals.

“Mount Mlosa is a well-defined, imposing, and precipitous mountain, separated from Mount Zomba by the deep gorge and valley of the Domasi river. At the lower end of this gorge is situated the Domasi Mission Station of the Church of Scotland, where many of the Europeans of the Shiré Highlands have had their health restored, under the kind treatment and nursing of the Rev. Dr. Henry and Mrs. Scott.

“This mountain (Mlosa) is really a continuation of the range of hills which commences near to Fort Johnston, and running nearly parallel with the course of the Upper Shiré river, culminates in Mount Zomba at its southern extremity. The height of its plateau is about the same as that

- (3) Third List of Birds collected by Mr. Alexander Whyte, F.Z.S., in Nyasaland. By Captain G. E. SHELLEY, F.Z.S. *Ibis*, 1894, p. 461, pl. xii.

[Report on several collections containing examples of 100 species. Of these one (*Agapornis lilianæ*) was new and 44 were additions to the Nyasaland list.]

- (4) On a Collection of Birds from Mount Chiradzulu, in the Shiré Highlands, Nyasaland. By Captain G. E. SHELLEY, F.Z.S. With Prefatory Remarks by P. L. SCLATER. *Ibis*, 1896, p. 177, pl. iv.

[Report on 40 specimens from Mount Chiradzulu, referable to 27 species, of which 3 were new to science.]

of Mount Zomba, from 5500 to 6500 ft. above the sea-level, with an average temperature, at my upper camp, of 72° F. during the day and 60° F. at night. During the cold months, May, June, and July, it must fall much below this, as I learned that severe frosts and even ice were occasionally experienced there. The scenery on the plateau is very fine, and the valleys are heavily wooded, much more so than is the case on the Zomba Plateau. These virgin forests, of from 2000 to 3000 acres in extent, will form a most valuable timber reserve, now that good-sized building trees are becoming scarce around Zomba. The transport too will be comparatively easy, as the railway of the future will skirt the base of this mountain on its way to the Upper Shiré.

“The surface of the plateau is, roughly speaking, basin-shaped, and is divided into two almost equal sections by a deep, heavily-wooded valley. The rolling downs on both sides are well covered with fine, short, sweet grass, and there is an absence of the fern and scrub so characteristic of parts of the Zomba Plateau. Wild plants were blooming in profusion, and now and again we came across dells of buttercups, helichrysums, and orchids. Mount Mlosa is extremely well watered, and is a perfect grazing country, where great numbers of stock could be raised.

“As to the fauna and flora, I was agreeably surprised to find them of much more interest than I had expected. From the mountain’s proximity to Mount Zomba, I naturally supposed they would prove to be almost duplicates of that mountain. I discovered, however, numbers of plants which I had not met with before, and over a dozen birds new to me, including a fine Wood-Pigeon and two Quails, besides several small mammals. Large game-animals were almost wanting, the Bush-buck (*Tragelaphus*), formerly so numerous on the mountains, having been almost exterminated by the formidable wild dogs (*Lycan pictus*), which hunt their prey in flocks and are very fierce and destructive.”

As will be seen by reference to Capt. Shelley’s list, examples of 47 species of birds were obtained during this expedition.—P. L. S.]

II. LIST OF THE SPECIES, by G. E. S.

In the following list of the species represented in Mr. Whyte's collection the localities are added, and references are given to the pages of the 'Birds of Africa' where the name is mentioned.

Name.	Reference to Shelley's B. of Afr.	Locality.
	Page	
1. <i>Anthrothreptes longuemariï</i>	6	Zomba.
2. <i>Zosterops anderssoni</i>	7	Zomba.
3. <i>Parisoma plumbeum</i>	10	Zomba Plateau.
4. <i>Motacilla campestris</i>	11	Mount Mlosa and Mount Zomba.
5. <i>Anthus lineiventris</i>	12	Zomba.
6. — <i>rufulus</i>	12	Mount Mlosa and Mount Zomba.
7. <i>Macronyx croceus</i>	13	Zomba Plains.
8. <i>Mirafra fischeri</i>	15	Zomba Plains.
9. <i>Emberiza flaviventris</i>	18	Zomba.
10. — <i>orientalis</i>	18	Zomba.
11. <i>Petronia flavigula</i>	19	Zomba Plateau.
12. <i>Passer diffusus</i>	20	Zomba.
13. <i>Serinus icterus</i>	21	Mount Mlosa.
14. <i>Hypochera funerea</i>	23	Zomba.
15. <i>Coliipasser ardens</i>	23	Mount Mlosa.
16. <i>Pyromelana xanthomelana</i>	24	Zomba.
17. — <i>flammeiceps</i>	25	Zomba Plains.
18. <i>Quelea quelea</i>	25	Mount Mlosa.
19. <i>Spermestes scutatus</i>	28	Mount Mlosa.
20. <i>Granatina angolensis</i>	29	Mount Mlosa and Zomba Plains.
21. <i>Estrilda subflava</i>	30	Mount Mlosa.
22. <i>Lagonosticta rhodoparia</i>	31	Mount Mlosa.
23. <i>Hypargus niveiguttatus</i>	32	Mount Mlosa.
24. <i>Hyphanturgus ocellarius</i>	38	Mount Mlosa.
25. <i>Xanthophilus xanthops</i>	39	Zomba Plains.
26. <i>Hyphantornis nigriceps</i>	40	Zomba.
27. <i>Oriolus larvatus</i>	41	Zomba.
28. <i>Pholidauges verreauxi</i>	42	Zomba.
29. <i>Lamprocolius sycobius</i>	43	Zomba Plains.
30. <i>Amydrus morio</i>	44	Mount Mlosa.
31. <i>Dilophus carunculatus</i>	46	Zomba.
32. <i>Prionops talacoma</i>	49	Zomba.
33. <i>Sigmodus tricolor</i>	49	Zomba Plains and Zomba.
34. <i>Graucalus pectoralis</i>	50	Zomba Plains.
35. <i>Fiscus collaris</i>	51	Zomba. [Zomba Plains.
36. <i>Emeocotnus collaris</i>	53	Mount Mlosa, Mount Zomba, and
37. <i>Nilaus nigritemporalis</i>	53	Zomba Plains.
38. <i>Dryoscopus cubla</i>	55	Zomba. [Zomba.
39. <i>Pelicanus bertrandi</i>	56	Mount Mlosa, Mount Zomba, and
40. <i>Crateropus kirki</i>	58	Zomba.

Name.	Reference to Shelley's B. of Afr.	Locality.
	Page	
41. <i>Crimiger placidus</i>	63	Mount Mlosa and Mount Zomba.
42. — <i>olivaceiceps</i> *	Mount Mlosa.
43. — <i>fusciceps</i>	63	Mount Mlosa and Mount Zomba.
44. <i>Chlorocichla occidentalis</i>	64	Chidawah Mountains and Karonga.
45. <i>Phyllostrophus capensis</i>	65	Zomba Plateau.
46. <i>Apalis flavigularis</i>	71	Mount Mlosa and Mount Zomba.
47. <i>Orthotomus erythropterus</i>	72	Mount Mlosa.
48. <i>Cisticola lugubris</i>	74	Mount Mlosa.
49. — <i>strangii</i>	74	Zomba and Zomba Plateau.
50. — <i>subruficapilla</i>	74	Mount Zomba.
51. — <i>cinerascens</i>	75	Zomba.
52. — <i>rufa</i>	75	Zomba Plateau.
53. <i>Melocichla orientalis</i>	76	Zomba Plains and Zomba.
54. <i>Bradypterus nyassæ</i>	77	Mount Mlosa.
55. <i>Acrocephalus arundinaceus</i> ..	79	Mount Mlosa.
56. <i>Phylloscopus trochilus</i>	80	Mount Zomba.
57. <i>Sylvia hortensis (simplex)</i>	81	Mount Mlosa and Zomba Plateau.
58. <i>Cossypha caffra</i>	84	Mount Mlosa and Mount Zomba.
59. — <i>heuglini</i>	84	Mount Mlosa and Zomba Plateau.
60. <i>Tarsiger johnstoni</i> †	Mount Mlosa and Mount Zomba.
61. <i>Turdus gurneyi</i>	88	Zomba Plateau.
62. — <i>milanjensis</i>	88	Mount Zomba.
63. <i>Bradyornis murinus</i>	93	Zomba Plateau and Zomba.
64. <i>Muscicapa grisola</i>	94	Zomba.
65. <i>Chloropeta natalensis</i>	96	Mount Mlosa. [Zomba Plateau.
66. <i>Pachyprora dimorpha</i>	98	Mount Mlosa, Mount Zomba, and
67. <i>Trochocercus albonotatus</i>	99	Mount Mlosa.
68. <i>Terpsiphone perspicillata</i> ...	99	Zomba.
69. <i>Hirundo rustica</i>	101	Zomba.
70. — <i>puella</i>	102	Zomba Plains and Mount Mlosa.
71. <i>Cypselus apus</i>	105	Mount Mlosa.
72. <i>Tachornis parvus</i>	106	Zomba Plains.
73. <i>Caprimulgus fossi</i>	107	Zomba.
74. <i>Melittophagus meridionalis</i> ..	110	Mount Mlosa and Zomba.
75. <i>Merops apiaster</i>	111	Zomba Plains and Zomba.
76. <i>Rhinopomastus cyanomelas</i> ..	113	Zomba Plains.
77. <i>Lophoceros melanoleucus</i>	114	Zomba Plains.
78. — <i>epirhinus</i>	114	Zomba Plains and Upper Shiré.
79. <i>Ispidina natalensis</i>	116	Zomba Plains and Zomba.
80. <i>Halcyon chelicutensis</i>	117	Mount Mlosa and Lakangula River.
81. <i>Colius erythromelon</i>	118	Zomba Plains.
82. <i>Turacus livingstonii</i>	119	Mount Mlosa and Zomba Plains.
83. <i>Schizorhis concolor</i>	120	Zomba Plains.
84. <i>Centropus nigrorufus</i>	122	Mount Mlosa and Zomba Plains.
85. <i>Coccytes glandarius</i>	123	Zomba and Zomba Plains. [Plains.
86. — <i>cafer</i>	123	Lakangula River, on the Zomba
87. <i>Cuculus solitarius</i>	124	Zomba.

* See Ibis, 1896, p. 179.

† See Ibis, 1896, p. 181.

Name.	Reference to Shelley's B. of Afr.	Locality.
	Page	
88. <i>Chrysococcyx cupreus</i>	124	Zomba Plains.
89. <i>Indicator minor</i>	125	Zomba Plains.
90. <i>Melanobucco melanopterus</i>	126	Zomba Plains.
91. — <i>zomba</i>	126	Zomba Plains.
92. <i>Smilorhis whytii</i>	128	Zomba and Lakangula.
93. <i>Barbatula bilineata</i>	128	Zomba Plains.
94. <i>Thripidae namaquus</i>	133	Zomba.
95. <i>Vinago wakefieldi</i>	134	Mpala.
96. — <i>delalandii</i>	134	Zomba Plains.
97. <i>Columba arquatrix</i>	135	Mount Mlosa.
98. <i>Haplopetia johnstoni</i>	136	Mount Zomba.
99. <i>Chalcopelia afra</i>	137	Mount Mlosa.
100. <i>Tympanistria tympanistria</i>	138	Mount Mlosa and Mount Zomba.
101. <i>Strix flammea</i>	141	Zomba Plains.
102. <i>Glaucidium perlatum</i>	142	Zomba Plains.
103. <i>Scops leucotis</i>	143	Zomba Plains.
104. <i>Bubo maculosus</i>	143	Zomba Plains and Lakangula River.
105. <i>Falco biarmicus</i>	145	Mpimbi on the Upper Shiré.
106. <i>Tinnunculus rupicola</i>	146	Mount Mlosa.
107. <i>Nisaetus spilogaster</i>	149	Zomba.
108. <i>Buteo desertorum</i>	150	Mount Mlosa and Zomba Plateau.
109. <i>Asturina monogrammica</i>	151	Zomba and Lakangula River.
110. <i>Melierax gabar</i>	151	Zomba Plains and Zomba. [Plains.
111. <i>Astur polyzonoides</i>	152	Mpimbi (Upper Shiré) and Zomba
112. <i>Circus macrurus</i>	153	Zomba Plains.
113. — <i>ranivorus</i>	153	Mount Mlosa.
114. <i>Pseudogyps africanus</i>	154	Zomba Plains.
115. <i>Herodias ralloides</i>	156	Zomba Plains.
116. <i>Butorides atricapilla</i>	158	Mount Mlosa.
117. <i>Rhynchops flavirostris</i>	164	Mpimbi.
118. <i>Dendrocycna fulva</i>	171	Fort Johnston, Upper Shiré.
119. <i>Porphyrion alleni</i>	175	Lake Shirwa.
120. <i>Crex crex</i>	176	Zomba Plains.
121. <i>Limnocorax niger</i>	177	Lake Shirwa.
122. <i>Corethrura lineata</i>	177	Mount Mlosa.
123. <i>Turnix leparana</i>	178	Zomba Plains.
124. <i>Erethya adansoni</i>	178	Mount Mlosa and Zomba Plains.
125. <i>Coturnix capensis</i>	178	Mount Mlosa.
126. <i>Pternistes humboldti</i>	179	Lake Shirwa and Zomba Plains.
127. <i>Otis melanogaster</i>	185	Mount Mlosa and Zomba Plains.
128. <i>Lobivanellus lateralis</i>	187	Zomba Plains and Fort Johnston.
129. <i>Stephamblyx inornatus</i>	188	Zomba Plains. [Lakangula River.
130. <i>Totanus hypoleucus</i>	192	Lake Shirwa, Mount Zomba, and
131. <i>Gallinago nigripennis</i>	192	Mount Mlosa and Fort Johnston.
132. <i>Glareola pratincola</i>	195	Mount Mlosa.